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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/622,843

07/18/2003

Harold Wiesmann

BSA 03-01

4758

26302

7590

11/06/2006

BROOKHAVEN SCIENCE ASSOCIATES/
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EXAMINER

TALBOT, BRIAN K

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,843

Applicant(s)

WIESMANN ET AL.

Examiner

Brian K. Talbot

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26, 57 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26, 57 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/06 has been entered.
2. Claims 1-26 and 57-58 remain in the application.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. In light of the amendment filed 8/31/06, the 35 USC 103 rejections have been withdrawn.

Claim Rejections - 35 USC § 103

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under

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37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-22,24,26,57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) in combination with EP-286,135.

Ovshinsky et al. (5,520,953) teaches a method of aligning the discrete brains of a multi-grained superconducting material. Ovshinsky et al. (5,520,953) teaches a superconducting precursor containing a parametric modifier, fluorine, the precursor compound being capable of providing fluorine for incorporation into the perovskite ceramic based defect oxide material without effecting formation of the superconducting material. The fluorine modifier is added to the precursor mixture by a solid source or by gaseous treatment. The superconducting precursor is then heated in an oxidizing atmosphere to produce the superconducting film (col. 11, line 25 – col. 12, line 50).

deBarbadillo, II et al. (4,962,085) teaches a production of oxidic superconductors by zone oxidation of a precursor alloy. deBarbadillo, II et al. (4,962,085) teaches forming fluoridized oxidic superconductors by inclusion of fluorine in the atmosphere surrounding the oxidizing zone (col. 3, lines 20-25).

Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) fails to teach spraying the superconductive precursor on a substrate to form a precursor film prior to adding the fluorine component.

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EP-286,135 teaches flame spraying ceramic oxide superconductors. A superconductor of the formula $M^1M^2M^3$ is formed by flame spraying all the components or by flame spraying M^1 and M^2 and heat treating in an atmosphere of M^3 . M^1M^2 comprise oxides, carbonated and fluorides of Cu, Y, Ba, Eu, Gd, etc. while M^3 comprises oxygen, fluorine, combination thereof, etc. The substrates include, aluminum oxide, silicon nitride, glass, metals, ceramics and polymers. The substrate can be preheated prior to flame spraying to obtain improved properties. (pg. 2, line 30 – pg. 6, line 20)

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) process by spraying the superconductive materials on the substrate with the expectation of achieving similar success.

With respect to the claims reciting carrier gases, specific precursors, etc, it is the Examiner's position that these variables are conventional and are a matter of design choice of one practicing in the art. One skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar results with any of the known carrier gases and precursors claimed.

Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) further in combination with EP 286,135 still further in combination with JP 01-83651 or Ovshinsky et al. (5,102,860).

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Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) further in combination with EP 286,135 fail to teach a plasma discharge for forming the superconducting material.

JP 01-83651 teaches a plasma discharge treatment of a superconducting film with a fluorine compound (abstract).

Ovshinsky et al. (5,102,860) teaches fluorinating a ceramic oxide including a superconducting ceramic oxide. The fluorination process is performed in a fluorine atmosphere by glow discharge plasma (col. 7, lines 40-50).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) further in combination with EP 286,135 process by utilizing a plasma discharge as evidenced by JP 01-83651 or Ovshinsky et al. (5,102,860) with the expectation of achieving similar results.

Response to Amendment

7. Applicant's arguments filed 8/31/06 have been fully considered but they are not persuasive.

Applicant argued that the prior art taught fluorinating a superconducting material and not a precursor.

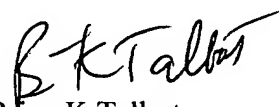
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Ovshinsky et al. (5,520,953) or deBarbadillo, II et al. (4,962,085) both teach fluorinating superconducting precursor materials prior to oxidation to form the final superconducting material.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/2/06
Brian K Talbot
Primary Examiner
Art Unit 1762

BKT